Aviation Fuel Supply Chain Overview: Integration of SAJF

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Washington State Sustainable Aviation Summit
In 2009, business aviation declared commitments on climate change

**Specific goals**
- Achieve carbon neutral growth by 2020
- Improve fuel efficiency by 2%/yr by 2020
- Reduce CO2 emissions by 50% by 2050 relative to 2005

**Results to date**
- Uneven progress made with SAJF being the biggest uncertainty
- Improvements made in technology, flight operations and infrastructure, and aircraft turnover
- Business Aviation Coalition published Business Aviation Guide to SAJF in May 2018
- Business Jets Fly Green in January 2019 at VNY
- Events planned for EU and Eastern U.S. in 2019
Business aviation facts

- 20,000 aircraft globally
- Aviation contributes 2% of global CO2 emissions
- Jet Fuel demand is 2.5 billion gals/yr in U.S. (6-7% of total jet)
- SAJF pathways fully tested and certified by OEMs, ASTM and FAA. Additional pathways in the queue
- Corporate flight may departments link activity to corporate sustainability metrics
- 95% of jet delivered by truck

Washington State facts

- 45-plus airports
- 60-plus FBOs
- 165 corporate flight department aircraft
How the jet fuel supply chain works today: General and business aviation

Refining → Shipping → Intermediate Storage → Transport → Fixed Storage → On Airport Refueler Trucks → Aircraft Fueling

NA Refineries: 137 U.S. 18 Canada

Continuous Testing and Certification in the Supply Chain
Challenges

- Commercial production and supply of SAJF in ratable volumes throughout major distributive regions.
- Price of blended SAJF (parity with refined jet net of credits) and blend ratios.
- Blending infrastructure (off airport) for SAJF and associated logistics: Pipeline, truck and rail receipt and distribution.
Challenges

- Aviation industry knowledge and acceptance: Suppliers, bizav organizations, FBOs, corporate flight departments, pilots and airports.

- Stable and harmonized regulatory environment (taxes, credits) with other biofuels.

- Linking business aviation SAJF demand with larger commercial demand and associated/shared infrastructure. Integration of business aviation requirements into the overall SAJF supply chain i.e. SEATAAC